

Preparing for upcoming reviews, proposals and conferences

- Upcoming “critical” milestones: MAPS directors review and proposal, CD-1 review (and directors review), PAC meeting and MFU proposal
- Many meetings, workshops, conferences with prominent sPHENIX talks: INT, User’s meeting, SQM, CERN Jet workshop etc etc
- Need to update our key detector and physics performance plots
 - Move to baseline + MAPS configuration
 - Move to new tracking and jet reco code
 - Move to “multi-year program” lumi assumptions
 - Recover some lost capabilities (e.g. UE subtraction)

Selected Milestones

- **MAPS** director's review: 2nd half of May
- PAC meeting: June 15-16 (**MFU Lol**)
- User's meeting: June 20-23 (Overview, jet and cold QCD talks)
- CD-1 director's review: 2nd week of August
 - **Plots by early July**
- CD-1 DOE review: Nov 7-9

Request from Jet TG

- Major need #2: more specificity (from sPHENIX mgmt? from BNL or DOE ?) about needed CD-1 review results, three examples:
 1. running scope: e.g. is there a “5-year” running plan with high-lumi Au+Au running? changes focus of trigger sim needs, projections, etc.
 2. balance: focus on remaking “core” metrics in original MIE (jet response, resolution vs. centrality/ R/p_T with latest G4) vs. demonstrate ability to keep up with latest physics developments (z_g , γ -tagged FF, etc.)?

Principles for upcoming studies

- Clearly defined goals (next slide)
- Based on common stable (tagged) MC detector configuration
- Based on stable (tagged) software versions
- Based on common straw man run plan
- Lightweight review for results
- Written documentation for results

Suggestions (for discussion!)

- Volunteer(s)/working group to define straw man run plan
- Each TG and tracking group defines critical performance and physics studies
- Each study should lead to a sPHENIX technical/simulation note
 - Identify primary authors, milestones, deliverables
 - Ask senior collaborators/specific institutions to review notes
 - Publish notes on sPHENIX webpage
 - Establish repository for approved plots

Examples (for discussion!)

- “Luminosity projections and possible sPHENIX run plan for 2022-2025”
- “Performance of the sPHENIX central tracker in pp and AA collisions”
- “Performance of the sPHENIX forward tracking system in pp and AA collisions”
- “Performance of the sPHENIX calorimetric jet reconstruction in pp and AA collisions”
- “Performance of the sPHENIX isolated photon in pp and AA collisions”
- “Identification of b-tagged jets in pp and AA collisions with sPHENIX”
- “Fast simulation studies of sPHENIX open heavy flavor measurements”
- “MC studies of Jet RAA measurements with sPHENIX”
- “MC studies of Upsilon RAA measurements with sPHENIX”
- “MC studies of Drell-Yan production measurements with sPHENIX”